

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-297-AD; Amendment 39-13691; AD 2004-13-09]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model DHC-8-301, -311, and -315 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Bombardier Model DHC-8-301, -311, and -315 airplanes. This AD requires determining the modification number of the angle of attack (AOA) sensor vanes; testing the movement of the affected vanes to evaluate sticking against both the upper and the lower vane travel end stops; and corrective action, if necessary. This action is necessary to prevent an incorrect AOA indication to the stall warning system in flight, which could result in an inadvertent stall and consequent loss of control of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective August 3, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of August 3, 2004.

ADDRESSES: The service information referenced in this AD may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Ezra Sasson, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, New York Aircraft Certification Office, FAA, 1600 Stewart Avenue, suite 410, Westbury, New York 11590; telephone (516) 228-7320; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Bombardier Model DHC-8-301, -311, and -315 airplanes was published in the Federal Register on April 26, 2004 (69 FR 22461). That action proposed to require determining the modification number of the angle of attack (AOA) sensor vanes; testing the movement of the affected vanes to evaluate sticking against both the upper and the lower vane travel end stops; and corrective action, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

Conclusion

We have determined that air safety and the public interest require the adoption of the rule as proposed.

Cost Impact

We estimate that 57 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 work hour per airplane to accomplish the proposed inspection to determining the modification letter, and that the average labor rate is \$65 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$3,705, or \$65 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-13-09 Bombardier, Inc. (Formerly de Havilland, Inc.): Amendment 39-13691. Docket 2002-NM-297-AD.

Applicability: Model DHC-8-301, -311, and -315 airplanes, serial numbers 100 through 583, inclusive; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent an incorrect angle of attack (AOA) indication to the stall warning system in flight, which could result in an inadvertent stall and consequent loss of control of the airplane, accomplish the following:

Service Bulletin References

(a) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-27-94, Revision 'A', dated February 5, 2002.

Note 1: Bombardier Alert Service Bulletin A8-27-94, Revision 'A', references Rosemount Aerospace Alert Service Bulletin 0861CAB-27A-07, dated September 28, 2001, as an additional source of service information for testing the AOA sensors. The Rosemount service bulletin is included in the Bombardier service bulletin.

Inspection to Determine Modification

(b) Within 1,000 flight hours or 18 months after the effective date of this AD, whichever occurs first, inspect the right and left AOA sensor vanes to determine whether modification (MOD) 'J' has been incorporated. Instead of inspecting the sensors, a review of airplane maintenance records is acceptable if the MOD level of the sensor can be positively determined from that review. If MOD 'J' has been incorporated in both sensors, no further action is required by this paragraph.

Movement Tests

(c) For any AOA sensor vane that does not have MOD 'J' installed: Prior to further flight following the inspection required by paragraph (b) of this AD, do a movement test of the AOA sensor vane per the service bulletin.

(d) If the result of the movement test in paragraph (c) of this AD is less than 110 grams, repeat the movement test prior to the accumulation of 5,000 flight hours or 24 months after accomplishing the initial test, whichever occurs first. Do the test per the service bulletin.

Corrective Action

(e) If the result of any movement test in paragraph (c) or paragraph (d) of this AD is 110 grams or more, replace the AOA sensor vane with a reworked MOD 'J' sensor vane, per the service bulletin, at the applicable time in paragraph (e)(1), (e)(2), or (e)(3) of this AD.

(1) If the result of the movement test in paragraph (c) of this AD is between 110 and 169 grams inclusive, replace the sensor vane at the earlier of 1,000 flight hours, or 18 months after accomplishing the movement test in paragraph (c) of this AD.

(2) If the result of any repeat movement test in paragraph (d) of this AD is between 110 and 169 grams inclusive, replace the sensor vane at the earlier of 1,000 flight hours or 6 months after accomplishing the movement test in paragraph (d) of this AD.

(3) If the result of the movement test is 170 grams or more, replace the sensor vane within 5 days after the accomplishing the movement test in paragraph (c) or paragraph (d) of this AD.

Parts Installation

(f) As of the effective date of this AD, no person may install a sensor vane, part number 861CAB, on any airplane unless MOD "J" has been incorporated.

Reporting and Parts Modification

(g) Although the Rosemount service bulletin contains procedures for sending test findings to the manufacturer, and for sending removed parts to the manufacturer for modification, this AD does not require those actions.

Actions Accomplished Per Previous Release of Service Bulletin

(h) Actions accomplished before the effective date of this AD per Bombardier Alert Service Bulletin A8-27-94, dated October 25, 2001, are considered acceptable for compliance with the corresponding action specified in this AD.

Alternative Methods of Compliance

(i) In accordance with 14 CFR 39.19, the Manager, New York Aircraft Certification Office, FAA, is authorized to approve alternative methods of compliance for this AD.

Incorporation by Reference

(j) Unless otherwise specified in this AD, the actions shall be done in accordance with Bombardier Alert Service Bulletin A8-27-94, Revision "A", dated February 5, 2002. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, suite 410, Westbury, New York; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Note 2: The subject of this AD is addressed in Canadian airworthiness directive CF-2001-46, dated December 3, 2001.

Effective Date

(k) This amendment becomes effective on August 3, 2004.

Issued in Renton, Washington, on June 16, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-14319 Filed 6-28-04; 8:45 am]

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